North America's Leader in Hazardous Material Information Management

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MSDS PRODUCT INFORMATION

Date: 10/07/2005

To: MSDS Requester

From: 3E Company

Subject: The MSDS you have requested

[ ] MSDS NOT REQUIRED
In response to your request for a Material Safety Data Sheet, according to the OSHA Hazard Communicatin Standard (Right-to-Know), the following item is an article. Articles are defined in 29 CFR 1910.1200(c). Products such as Drugs, cosmetics, food, or alcoholic beverages, wood or wood products, and tobacco or tobacco products, as defined in 29 CFR1910.1200(b)(6), are exempt from the Hazard Communication Standard. Items that are considered articles, as defined in 29 CFR 1910.1200(c), are also exempt from this Standard. Therefore, the manufacturer is not required to provide an MSDS for this product.

[X] MSDS DISCONTINUED PRODUCT
In response to your request for a Material Safety Data Sheet, the manufacturer has discontinued the product listed below. The MSDS Attached is the most current version, or an MSDS is no longer available.

[ ] MSDS BEST COPY AVAILABLE
The MSDS attached is the best copy available from the manufacturer.

[ ] MANUFACTURER NO LONGER IN BUSINESS
In response to your request for a Material Safety Data Sheet, a current MSDS could not be obtained for this product. It has been determined that the manufacturer listed below is no longer in business. A current address and phone number could not be located.

Manufacturer: Solaris Group

Product Name: RosePride Orthenex Insect & Disease Control (DISCONTINUED)

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 10/21/1996

MSDS No: 6008

SOLARIS

RosePride™ Orthenex® Insect & Disease Control

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RosePride™ Orthenex® Insect & Disease Control

PRODUCT DESCRIPTION: Insecticide/Fungicide

MANUFACTURER

The SOLARIS Group

of Monsanto Company

P.O. Box 5008

San Ramon, CA 94583-0808

EPA REG. NO.: 239-2594A **PN:** 5617-B

24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone 800-454-2333

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS Registry #
Acephate, O,S-Dimethylacetylphosphoramidothioate	4	30560-19-1
Triforine, N,N'-(1,4-piperazinediylbis{2,2,2-trichloroethylidene})bis{formamide}	3 .2 5	26644-46-2
Hexakis, (2-methyl-2-phenypropyl) distannoxane	0 .7 5	13356-08-6
INERT INGREDIENTS	~ 92 .0	

``Inert Ingredients" is a term defined by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (40 CFR 158.153). It refers to any substance, other than an active ingredient, which is intentionally added to a pesticide product. Some inert ingredients may be hazardous chemicals, as defined by the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). The hazards associated with these inert ingredients have been included in this document.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Light amber liquid

IMMEDIATE CONCERNS: - CAUSES IRREVERSIBLE EYE DAMAGE
- CAUSES SKIN IRRITATION
- MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN
- DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING
- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: Causes irreversible eye damage. Symptoms may include pain, tearing, swelling, redness and blurred vision. See Toxicology Information, section 11.

SKIN: This substance is a skin irritant so contact with the skin could cause prolonged (weeks) injury to the affected area. The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment. Syptoms may include pain or a feeling of heat, discoloration, swelling and blistering. The dermal toxicity of this substance has not been determined. However, it may be slightly toxic to internal organs if absorbed through the skin. The degree of injury will depend on the amount absorbed. See Toxicological Information, section 11.

INGESTION: This substance is slightly toxic to internal organs if swallowed. See Toxicology Information, section 11.

INHALATION: If inhaled, this substance is considered practically non-toxic to internal organs. This substance may be irritating if inhaled. Respiratory tract irritation may include, but may not be limited to, one or more of the following: nasal discharge, sore throat, coughing, bronchitis and difficulty in breathing. See Toxicological Information, section 11.

COMMENTS HEALTH: Depending upon the extent and degree of overexposure to the product, signs and symptoms of cholinesterase inhibition can result following either ingestion, skin contact or inhalation routes of exposure. Signs and symptoms of cholinesterase inhibition can result from either acute (one time), subchronic (repeated short-term) and chronic (daily life-time) overexposure to the product.

Signs and symptoms of cholinesterase inhibition usually occur within 12 hours following overexposure. These effects may include, but may not be limited to, headache, dizziness, weakness, nausea, vomiting, diarrhea, constriction of the pupil of the eye, blurred or dark vision, excessive salivation or nasal discharge, profuse sweating and abdominal cramps. Incontinence, unconsciousness, convulsions and breathing difficulties are indicative of severe poisoning. In untreated severe poisoning, death is due

to respiratory failure or cardiac arrest.

4. FIRST AID MEASURES

EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Call a physician.

SKIN: Wash skin thoroughly with soap and water. Remove and wash contaminated clothing. If irritation develops, get medical attention.

INGESTION: If swallowed: Do not induce vomiting. Call a physician or Poison Control Center (1-800-457-2022). Drink promptly a large quantity of milk, egg whites, or gelatin solution. If these are not available, drink large quantities of water. Avoid alcohol.

INHALATION: If signs or symptoms of respiratory irritation occur, move the person to fresh air. If irritation persists, see a doctor.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage. This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

ADDITIONAL INFORMATION: Medical Information: Call day or night, 1-800-454-2333 OR 1-800-457-2022.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 121°F 49.5°C TAG CC

EXTINGUISHING MEDIA: CO2, Dry Chemical, Foam Water Fog.

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorous. Combustion may produce toxic compounds of chlorine. Incomplete combustion can produce carbon monoxide.

FIRE FIGHTING PROCEDURES: Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Keep containers cool with a water spray. Contain and isolate runoff and debris for proper disposal. Decontaminate personal

protective equipment and fire fighting equipment before reuse. Read the entire document.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: While wearing rubber gloves, soak up spilled material with paper towels and discard in trash.

LARGE SPILL: Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgite, bentonite or other absorbent clays. Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

Do not contaminate water, foodstuffs or feed by storage or disposal.

GENERAL PROCEDURES: Observe all protection and safety precautions when cleaning up spills -- see Section 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION". For help with any spill, leak, fire or exposure involving this material, call day or night (800) 454-2333.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Store away from heat or open flames. Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Avoid contamination of feed and foodstuffs. Store in a cool, dry place, preferably locked storage area.

HANDLING: Do not store below 25ø F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.

PERSONAL PROTECTION

EYES AND FACE: Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available.

SKIN: Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type of glove for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing is likely. Wash immediately if skin is contaminated. Remove contaminated clothing promptly and launder before reuse. Clean protective equipment before reuse. Wash thoroughly after handling.

For mixing and application of this product in accordance with label instructions, chemical resistant gloves should be worn.

RESPIRATORY: Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded (see below). If used, full facepiece replaces need for chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

For application of product in accordance with label instructions, no special respiratory protection is required.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	EXPOSURE L	
Chemical Name	**OSHA PEL**	**ACGIH TL**
O,S-Dimethylacetylphosphoramidothioate	None	None
N,N'-(1,4-piperazinediylbis{2,2,2-trichloroethylidene})bis{formamide}	None	None
(2-methyl-2-phenypropyl) distannoxane	None	None
N-Methyl Pyrrolidone	None	None
Cyclohexanol	200 mg/m3	206 mg/m3
Methyl (n-amyl) ketone	465 mg/m3	234 mg/m3
Toximul 3406F		

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Light amber liquid

pH: No Data Available

PERCENT VOLATILE: No Data Available

BOILING POINT: No Data Available

FREEZING POINT: No Data Available

SOLUBILITY IN WATER: Miscible with water.

SPECIFIC GRAVITY: 0.96 gr/cc at 20°C

VISCOSITY: No Data Available

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

STABILITY: Do not store below 25øF.

HAZARDOUS DECOMPOSITION: No Data Available

INCOMPATIBLE MATERIALS: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

11. TOXICOLOGICAL INFORMATION

ACUTE

EYES: This product is considered to be a severe eye irritant. (Based on the the results of the dermal irritation study.) EPA FIFRA toxicity category I.

DERMAL LD_{50}: Severely irritating to the skin (Rabbit). Primary irritation score 5.4/8.0. EPA FIFRA Toxicity Category II. No acute dermal tox data available. (Test requirement waived by EPA based on results of skin irritation study.)

ORAL LD_{50}: The oral LD50 in rats is 1.06 g/kg. EPA FIFRA Toxicity Category III.

INHALATION LC_{50}: The 4-hour inhalation LC50 in rats is greater than 5.4 mg/l. EPA FIFRA toxicity category IV.

SENSITIZATION: No evidence of allergic skin reactions was observed in guinea pigs following repeated skin exposure.

SUBCHRONIC: This product contains acephate, an organophosphate

that is considered to be a cholinesterase inhibitor. Cholinesterase is an enzyme involved in the transmission of nerve impulses. Therefore, repeated daily exposure to the product can gradually lower the cholinesterase levels to a point that signs and symptoms of organophosphate poisoning may occur.

CHRONIC: Results of the rat chronic acephate feeding study indicate that the no observed effect level (NOEL) was 5 parts per million (ppm) or (0.25 mg/kg/dy). The NOEL's for triforine in the rat chronic study and the dog 2-year feeding study were 625 and 100 ppm (31 and 2.5 mg/kg/dy), respectively. The hexakis NOEL's for the rat chronic and 2-year dog studies are 2,000 and 16,000 ppm (100 and 400 mg/kg/dy), respectively.

The dog 2-year acephate feeding study NOEL for cholinesterase inhibition was 30 ppm (0.75 mg/kg/dy). The effect level for cholinesterase inhibition occurred at the high dose of 200 ppm (5 mg/kg/dy).

CARCINOGENICITY:

CARCINOGENICITY COMMENTS: EPA has classed acephate in category C as a possible human carcinogen based on the liver tumor findings in the mouse lifetime feeding study. Liver pathology was observed at dose levels of 250 and 1000 ppm (37.5 and 150 mg/kg/dy), while an increased incidence of liver cancer was noted in the high dose (150 mg/kg/dy) female mice only. Acephate has not demonstrated any evidence of carcinogenic potential in any other species.

Results of a mouse lifetime Triforine feeding study indicated that there was an increased incidence of liver and lung tumors. There was no significant increase in tumors in the rat chronic study (NOEL = 626 ppm or 31.3 mg/kg/dy).

Hexakis was not carcinogenic in either the rat or mouse lifetime feeding studies or the 2 year dog chronic study.

NEUROTOXICITY: Based on the results of the chicken neurotoxicity studies, acephate has not demonstrated potential to cause delayed neuropathy. Neither triforine or hexakis have been associated with neuro-histopathological changes.

TERATOGENICITY: Neither acephate, triforine or hexakis have been demonstrated to cause birth defects.

REPRODUCTIVE TOXIN: When male and female rats were fed acephate continuously for two generations through weaning of the third generation, animals in the mid and high-dose groups demonstrated compound-related effects on reproductive performance. The low-dose was considered the no-effect-level. There was no evidence of adverse reproductive effects in either the triforine or hexakis rat 3 generation

studies.

MUTAGENICITY: Acephate has demonstrated weak mutagenic potential in microbes or cultured cells, while results of in vivo studies indicate that it does not cause mutation in whole animals. Triforine and hexakis are not considered to be mutagens in either in vitro or in vivo studies.

COMMENTS: See Section 16 for definition of EPA FIFRA toxicity categories.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available.

ECOTOXICOLOGICAL INFORMATION: This material is toxic to birds and other wildlife. Highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. This material is toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

13. DISPOSAL CONSIDERATIONS

FOR LARGE SPILLS: Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

PRODUCT DISPOSAL: The Solaris Group is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.

If necessary to dispose of partially filled product container, then securely wrap it in several layers of newspaper and discard in trash.

EMPTY CONTAINER: Do not reuse container. Rinse throughly before discarding in trash.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Consumer Commodity

PRIMARY HAZARD CLASS/DIVISION: ORM-D

UN/NA NUMBER: NONE

PACKING GROUP: NO

U.S. SURFACE FREIGHT CLASS: NMFC NBR. 102120

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Consumer Commodity

SPECIAL SHIPPING NOTES: The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
ACUTE: YES	**CHRONIC:** NO	**FIRE:** NO	**REACTIVITY:** NO	**PRESSURE GENERATING:** NO

311/312 HAZARD CATEGORIES: Immediate (acute) health hazard: Product is an irritant to both eyes and skin.

313 REPORTABLE INGREDIENTS: Acephate. (CAS 30560-19-1); Triforine (CAS 26644-46-2); Hexakis (CAS 13356-08-6); N-methyl Pyrrolidone (CAS 872-50-4); Cyclohexanol (CAS 108-93-0). De Minimis Concentrations for Section 313 of EPCRA is 1.0%.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All non FIFRA regulated components are on the US EPA's TSCA Inventory List.

STATE REGULATIONS

PROPOSITION 65 STATEMENT: No ingredients on list.

16. OTHER INFORMATION

HMIS CODES

FIRE: 2 **HEALTH:** 3 **REACTIVITY:** 0 **PROTECTION:** -

NFPA CODES

FIRE: 2 **HEALTH:** 3 **REACTIVITY:** 0 **SPECIAL:** -

APPROVAL DATE: 12/06/1996

REVISION SUMMARY Revision #: 1

This MSDS replaces the September 11, 1995 MSDS. Any changes in information are as follows:
In Section 1
Date Prepared

In Section 6
Small Spill (text)

In Section 8
Engineering Controls (text) Skin Protection (text) Eyes-Face Protection (text) Respiratory Protection (text)

In Section 11
Acute Eye (text) Dermal LD50 (text) Chronic (text) Carcinogenicity (text) Neurotoxicity (text) Oral LD50 (text) Inhalation LC50 (text) Subchronic (text) Teratology (text) Reproduction (text) Mutagenicity (text) Section 11 Footnotes Sensitization (text)

In Section 15
Proposition 65 Statement (text) Carcinogen (text)

In Section 16
HMIS Flammability NFPA Flammability Manufacturer Supplemental Notes (text)

MANUFACTURER SUPPLEMENTAL NOTES: EPA FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) Toxicity Categories: The EPA toxicity categories are based on the results of the acute toxicology studies. The toxicology findings are compared to the FIFRA criteria to determine the product label signal word, precautionary and first aid statements. The EPA FIFRA toxicity category summary:

EPA FIFRA Product Label Toxicity Rating
Toxicity Category Signal Word

I DANGER Most toxic and irritating
II WARNING
III CAUTION
IV CAUTION Least toxic and irritating

COMMENTS: For additional information concerning this product, call the SOLARIS Groups Consumer Helpline at 800-225-2883.

MANUFACTURER DISCLAIMER: This Material Safety Data Sheet (MSDS) contains health, safety and environmental information for you and your employees. It does not replace the precautionary language,

use directions, or the storage and disposal information found on the product label. Information contained in this MSDS will help you to prepare for emergency response and to meet community right-to-know, emergency response and reporting requirements under SARA Title III and many other laws. Emergency response agencies and health care providers will also find this additional information useful.

Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved label copy. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Although the information and recommendations set forth herein (herinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Monsanto Company and The Solaris Group make no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determinations as to its suitability for their purposees prior to use. In no event will Monsanto Company or The Solaris Group be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.